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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WHISENANT, ETHAN C

ART UNIT PAPER NUMBER

1634

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,890

Applicant(s)

FU ET AL.

Examiner

Ethan Whisenant, Ph.D.

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The applicant's Preliminary Amendment filed 04 JAN 02 has been entered. Following the entry of the Preliminary Amendment, **Claim(s) 1-10** is/are pending. Please note that the preliminary amendment stated that Claims 1-10 should be replaced by Claims 1-10 below but that none of the claims were amended. Please clarify. Please note that Claims 1-10 - as shown in the preliminary amendment - have been examined, and that Claims 1-10 - as set forth on page 16-17 of the specification - have been replaced by Claims 1-10 as shown in the preliminary amendment.

SEQUENCE RULES

2. This application complies with the sequence rules and the sequences have been entered by the Scientific and Technical Information Center.

35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that may form the basis for rejections set forth in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in --

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a)

Claim Rejections under 35 USC § 102

- 4.** **Claim(s) 18, 21, 23** is/are rejected under 35 U.S.C. 102(b) as being anticipated by Pardee et al. [US 5,665,547 (1997)].

Claim 18 is drawn to a method of producing cDNA from mRNA which method comprises two steps. To begin, mRNAs having a polyA tail are contacted with a primer mixture wherein each primer in said mixture comprises at least 5 contiguous deoxythymidine residues and at least two non-deoxythymidine nucleotides near one end. Finally, the mRNAs are reverse transcribed into cDNAs using a reverse transcriptase.

Pardee et al. teach a method of producing cDNA from mRNA comprising the two steps recited in claim 18. See, for example, Figure 1 and Column 4 – Column 5, beginning at about Column 4, line 50.

Claim 21 is drawn to the method of Claim 18 wherein each primer comprises at least 10 contiguous deoxythymidines.

Pardee et al. teach this limitation. Note that the primer taught in Column 4 on line 58 comprises 11 contiguous deoxythymidines.

Claim 23 is drawn to the method of Claim 18 wherein each primer comprises 2, 3, 4, or 5 non- deoxythymidine nucleotides at one end.

Pardee et al. teach this limitation. Note that the primer taught in Column 4 on line 58 comprises 2 non- deoxythymidine nucleotides at one end.

- 5.** **Claim(s) 18-23** is/are rejected under 35 U.S.C. 102(b) as being anticipated by Peterson et al. (DEC 1998).

Peterson et al. teach a method of producing cDNA from mRNA comprising the limitations recited in Claim 18-23. See, for example, the Materials and Methods.

35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

CLAIM REJECTIONS UNDER 35 USC § 103

8. Claim(s) 19-20, 22 is/are rejected under 35 U.S.C. 103(a) as obvious over Pardee et al. [US 5,665,547 (1997)]. As applied against Claim 18 above and further in view of Hwang et al. (1994).

Claim 19 is drawn to the method of Claim 18 wherein each primer further comprises a restriction enzyme sequence near the end opposite to the one containing the non-deoxythymidine nucleotides.

Pardee et al. teach a method of producing cDNA from mRNA which method comprises all of the limitations recited in Claim 19 except Pardee et al. do not teach that their poly (dT) primer (i.e. the primer taught in Column 4, at about line 58) comprises a restriction enzyme sequence near the end opposite to the one containing the non-deoxythymidine nucleotides as required by Claim 19. However, as evidenced by Hwang et al., it was well known at the time of the invention to use poly (dT) primers with a restriction enzyme sequence near the end opposite to the one containing the non-deoxythymidine nucleotides. Therefore, absent an unexpected result, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to modify the method of Pardee et al. wherein the anchored comprises a restriction enzyme sequence near the end opposite to the one containing the non-deoxythymidine

nucleotides as taught by Hwang et al. The motivation for making this modification would have been to make the cloning of the cDNAs easier.

Claim 20 is drawn to the method of Claim 19 wherein the restriction enzyme sequence is double stranded.

Please note that the NotI restriction enzyme site comprises a 8 basepair double stranded sequence.

Claim 22 is drawn to the method of Claim 18 wherein each primer comprises at least 15 contiguous deoxythymidines.

Pardee et al. teach a method of producing cDNA from mRNA which method comprises all of the limitations recited in Claim 22 except Pardee et al. do not teach that their primer comprises at least 15 contiguous deoxythymidines. Note that the primer taught in Column 4 on line 58 comprises 11 contiguous deoxythymidines. However, Hwang et al. do teach an anchored primer like that required in claim 22 which comprises at least 15 contiguous deoxythymidines. Therefore, absent an unexpected result, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention that one could with a reasonable expectation of success modify the primer of Pardee et al. wherein the contiguous run of deoxythymidines was 15 residues as taught by Hwang et al. instead of the 11 residues taught by Pardee et al.

Absent an unexpected result, the substitution of one known reagent with known properties for a second well known reagent with known properties is routine in the art. As regards the motivation to make the substitution recited above, the motivation to combine arises from the expectation that the prior art elements will perform their expected functions to achieve their expected results when combined for their common known purpose. Support for making this obviousness rejection comes from the M.P.E.P. at 2144.07 and 2144.09.

CLAIM OBJECTIONS

9. **Claim(s) 24-26** is /are objected to because it is dependent upon a rejected independent base claim.

ALLOWABLE SUBJECT MATTER

10. **Claim(s) 27** is/are allowable over the prior art of record.

NONSTATUTORY DOUBLE PATENTING

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claim(s) 18-27 is/are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim(s) 1-5 of U.S. Patent No. 6,387,624. Although the conflicting claims are not identical, they are not patentably distinct from each other.

CONCLUSION

13. Claim(s) 18-27 is/are rejected and/or objected to for the reason(s) set forth above.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ethan Whisenant, Ph.D. whose telephone number is (703) 308-6567. The examiner can normally be reached Monday-Friday from 8:30AM -5:30PM EST or any time via voice mail. If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached at (703) 308-1152.

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The fax number for this Examiner is (703) 746-8465. Before faxing any papers please inform the examiner to avoid lost papers. Please note that the faxing of papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989). Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0196.

A handwritten signature in black ink, appearing to read 'E. Whisenant', with a stylized, cursive script.

Ethan Whisenant, Ph.D.
Primary Examiner